

In the Claims:

1. (Currently Amended) A method for identifying a drug discovery target:
 - (a) providing a computer for storing and accessing genomics information comprising a database wherein said computer permits computational analysis of biological relationships among the stored genomics information;
 - (b) querying the database to identify a disease-related
 - (c) identifying the biological objects and processes that act on those objects in the disease-related pathway whereby each object or process involved in the disease-related pathway is a drug discovery target; and
 - (d) accessing displaying the drug discovery target[[s]] to a user.
2. (Previously Presented) The method of claim 1 wherein the genomics information comprises information relating to genes, their DNA sequences, mRNA, proteins expressed from said genes, and the biological effects of the expressed proteins.
3. (Previously Presented) The method of claim 2 wherein said genomics information comprise data extracted from multiple public sources.
4. (Previously Presented) The method of claim 2 wherein said genomics information comprises proprietary data.
5. (Previously Presented) The method of claim 2 wherein said genomics information comprises data extracted from a combination of proprietary and public data sources.
6. (Cancelled)
7. (Original) The method of claim 2 wherein the means for storing the genomics information includes an ontology in which:

(a) each gene, gene product, and biological effect is given an identifier which is related to synonyms for the identifier;

(b) each gene, gene product, and biological effect is categorized by class; and

(c) the relationship of each gene, gene product and disease state is defined by slots and facets.

8. (Previously Presented) The method of claim 2 wherein drug discovery targets in the disease related pathway are prioritized based on factors that include function and complexity.

9. (Previously Presented) The method of claim 8 wherein drug discovery targets are further prioritized based on markers for side effects and patient responsiveness.

10-12. (Cancelled)

13. (Previously Presented) The method of claim 1 wherein the genomics information comprises information relating to genotype and the disease-related pathway comprises a gene, mRNA or protein expressed from said gene associated with a particular genotype.

14. (Previously Presented) The method of claim 1 wherein the genomics information comprises the name of each gene, mRNA or protein expressed from said gene, and their biological effects, and the means for storing and accessing the genomics information identifies relationships between genes and/or proteins expressed from said genes that are at least two steps removed from each other in a disease-related pathway.

15-57. (Cancelled)

58. (Currently Amended) A method for identifying a drug discovery target comprising:

(a) querying one or more subsets of genomics information generated from a database to identify:

(i) a disease-related pathway;

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(ii) the biological objects and processes that act on those in the disease-related pathway, whereby at least one of the object or processes involved in the disease-related pathway is a drug discovery target and wherein the one or more subsets reside on a computer system that allows the accessing of genomics information stored in the database and the performing of computational analysis of biological relationships among the concepts contained within the subsets; and

(b) ~~accessing the results displaying the drug discovery target to a user.~~

59-61. (Cancelled)